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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,350	10/28/2003	Takashi Yamazaki	008312-0306573	2535

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EXAMINER

FRANK, ELLIOT L

ART UNIT PAPER NUMBER

2125

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/694,350

Applicant(s)

YAMAZAKI ET AL.

Examiner

Elliot L Frank

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/28/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. Claims 2,4,6,9,10,12 and 14 are objected to because of the following informalities:
 - a. The following claim language is deemed awkward or inappropriate and should be revised to more clearly define the meets and bounds of the aforementioned claims:
 - i. Claims 2,6,10 and 14 include the phrase, "a specific one of them" in various lines. Please correct this language to precisely recite the claim element being discussed.

- ii. Claims 4 and 12 recite the phrase, "a clock which clocks a current time" in various lines. Please correct this phrase to, " a clock that maintains a current time" or something similar.
 - iii. Claim 9 includes the phrase, "a memo button which instructs to display text information" at line 14. Please correct this phrase to, " a memo button that causes text information to be displayed" or something similar.
 - iv. Claim 9 includes the phrase, "a display control unit which displays the text information electrified and stored in the memory selected by the selector key in the memo display section" in line 3. Please correct this phrase to, "a display control unit which displays the text information stored in the memory and selected by the selector key in the memo display section" or something similar.
- b. . Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Choi (USPN 6,684,264 B1).

The limitations of claim 5, and the applicable citation in Choi are as follows:

5. A display apparatus of an injection molding machine, which functions as a human-machine interface (column 3, lines 33-49 disclose an HMI interface for an injection molding machine), comprising: a text information receiving unit which receives the electronic text information created and transferred through a network; and a display control unit which displays the text information received by the receiving unit in the display screen (column 5, line 49-column 6, line 18, wherein Choi recites a networked computer and HMI being coupled as one control unit, and various information may be uploaded to the HMI from the networked computer).

6. The display apparatus of an injection molding machine according to claim 5, wherein the display screen of the display apparatus is divided into two or more sections, and a specific one of them is used as a display screen to display text information (column 7, line 62-column 8, line 31, wherein Choi discloses a flexible touch screen HMI device. The device includes the ability to divide the screen into multiple tabbed pages as depicted in figure 8. Figure 7 includes buttons that may be used to bring up textual information, such as information and help screens).

7. The display apparatus of an injection molding machine according to claim 6, wherein the display apparatus has a selector buttons display screen to select various data; and the display screen to display text information is used also as a selector buttons display screen (column 7, line 62-column 8, line 31, wherein Choi

discloses a flexible touch screen HMI device. Figure 7 includes buttons that may be used to bring up textual information, such as information and help screens, and figure 8 depicts these touch screen buttons on the same display as the informational screens).

8. The display apparatus of an injection molding machine according to claim 5, further comprising: an input unit which inputs text information as electronic data; and a text information transfer unit which transfers the electronic data of the text information inputted by the input unit through the network (column 4, lines 1-41 wherein Choi discloses the physical HMI unit comprised of various input devices. The HMI device is in communication with a computer that is connected to a network).

Choi et al. reads in entirety on the limitations of claims 5-8

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi (USPN 6,684,264 B1) in view of Zvonar (USPN 6,275,741 B1).

The limitations of the aforementioned claims, and the applicable citations in Choi are as follows:

1. A display apparatus of an injection molding machine, which functions as a human-machine interface (column 3, lines 33-49 disclose an HMI interface for an injection molding machine), comprising:

an input unit which inputs text information as electronic data; a memory which stores the electronic data of the text information inputted from the input unit (column 4, lines 1-19 disclose input means for the HMI);

[an instruction unit which instructs to display the text information; and a display control means which displays the electronic text information stored in the memory in the display screen according to the instruction from the instruction unit.]

2. The display apparatus of an injection molding machine according to claim 1, wherein the display screen of the display apparatus is divided into two or more sections, and a specific one of them is used as a display screen to display text information (column 7, line 62-column 8, line 31, wherein Choi discloses a flexible touch screen HMI device. The device includes the ability to divide the screen into multiple tabbed pages as depicted in figure 8. Figure 7 includes buttons that may be used to bring up textual information, such as information and help screens).

3. The display apparatus of an injection molding machine according to claim 2, wherein the display apparatus has a selector buttons display screen to select various data; and the display screen to display text information is used also as a selector buttons display screen (column 7, line 62-column 8, line 31, wherein Choi discloses a flexible touch screen HMI device. Figure 7 includes buttons that may be used to bring up textual information, such as information and help screens, and

figure 8 depicts these touch screen buttons on the same display as the informational screens).

While Choi discloses a touch screen input HMI device with various communication features, Choi does not specifically discuss the entered text retrieval features of claims 1-8.

Zvonar, analogous to Choi in that both systems deal with factory monitoring and control systems (Zvonar, column 1, lines 5-10), reads on the additional requirements of claim 1 at column 3, lines 1-43, wherein a factory monitoring and control system allowing a user to enter a message that may be automatically displayed per the user's requirements is disclosed.

4. The display apparatus of an injection molding machine according to claim 1, further comprising: a time setting unit which sets a time to display text information; a clock which clocks a current time; a search unit which searches the data stored in the memory for the text information whose display time is a current time; and a time display control unit which displays the text information in the display screen when the search unit searches the text information whose display time is a current time (column 7, line 65-column 8, line 55, wherein Zvonar discloses a system that will display a user entered message per logic that notifies the user based on a time trigger that compares the current time to a warn date time).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the elements of Zvonar into Choi to have provided a system that allowed the monitoring, tracking and scheduling of

performance of periodic activities in a manufacturing environment including the ability to proactively notify designated users of items which are or will soon become due (Zvonar, column 2, lines, 44-55).

8. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi (USPN 6,684,264 B1) in view of Zvonar (USPN 6,275,741 B1) as applied to claim 1 above, and further in view of Fennell (USPN 5,430,436).

Claim 9 includes at least all the limitations of claim 1, with the additional requirement of specialized keys including a memo display key to display text, a memo create key that causes a character input panel to be displayed and a display time key to set a display time.

Claim 13 includes at least all of the limitations of claim 1 with the same additional limitations of claim 9 as they pertain to an email notification system.

The combination of Choi and Zvonar make obvious all of the limitations of claim 1. The aforementioned combination also discloses the use of flexible touch screen technology to input information (Choi, column 4, lines 1-31) and the entry of a message set to alert an operator at a certain time (Zvonar, column 7, line 65-column 8, line 55). These messages may be displayed notifications (i.e. memos) or emails to an operator (Zvonar, column 3, lines 1-42). However, the combined references do not make obvious certain display keys that cause a character entry keyboard to be displayed allowing text to be entered on into the HMI.

Fennel, analogous to the previous references in that Fennel is an electronic communication device that allows an operator to monitor and respond to notifications (Fennel, column 1, lines 10-14), reads on the additional requirements of claims 9 and 13 at column 2, line 61-column 3, line 12, wherein certain keys will cause a keyboard to be displayed in a display screen on the device for editing text messages.

Claims 10-12 have the same functional requirements as claims 2-4, and are therefore obvious in view of the same citations in the combined references.

Claims 14 and 15 have the same functional requirements as claims 2 and 3, and are therefore obvious in view of the same citations in the combined references.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the functionality of Fennel into the previously combined references to have provided a user the means to enter new information or modify received information (Fennell, column 1, lines 44-61).

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order

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for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2002/0138584 A1 – Fujimoto et al. – Messaging system

US 2002/0152576 A1 – Murray et al. – Maintenance system

US 2003/0105535 A1 – Rammler – HMI system

US 2003/0229673 A1 – Malik – Messaging system

USPN 5,165,012 A – Crandall et al. – Messaging system

USPN 5,246,643 A – Inaba et al. – Injection molding control

USPN 5,883,580 A – Briancon et al. – Messaging system

USPN 6,072,385 A – Maenishi – Messaging system

USPN 6,275,741 B1 – Choi – Injection molding control

USPN 6,311,101 B1 – Kastner – Injection molding control

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elliot L Frank whose telephone number is (571) 272-3739. The examiner can normally be reached on M-F 8-5:00 (flex).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (571) 373-3749. The fax phone number

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for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ELF
23 November 2004



ELLIOT FRANK
PATENT EXAMINER